

ABSTRACTMICROENCAPSULATED CATALYST-LIGAND SYSTEM, METHODS OF PREPARATION
AND METHODS OF USE THEREOF

5 A microencapsulated catalyst-ligand system is prepared by dissolving or
dispersing a catalyst and/or a ligand in a first phase (for example an organic phase),
dispersing the first phase in a second, continuous phase (for example an aqueous phase)
to form an emulsion, reacting one or more microcapsule wall-forming materials at the
interface between the dispersed first phase and the continuous second phase to form a
10 microcapsule polymer shell encapsulating the dispersed first phase core and when the
first phase contains only a catalyst or a ligand, treating the microcapsules with the
remaining ligand or catalyst component of the catalyst-ligand system. The catalyst is
preferably a transition metal catalyst and the ligand is preferably an organic ligand. The
encapsulated catalyst-ligand system may be used for conventional catalysed reactions.
15 The encapsulated catalyst-ligand system may be recovered from the reaction medium and
re-cycled.

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(57) Abstract: A microencapsulated catalyst-ligand system is prepared by dissolving or dispersing a catalyst and/or a ligand in a
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